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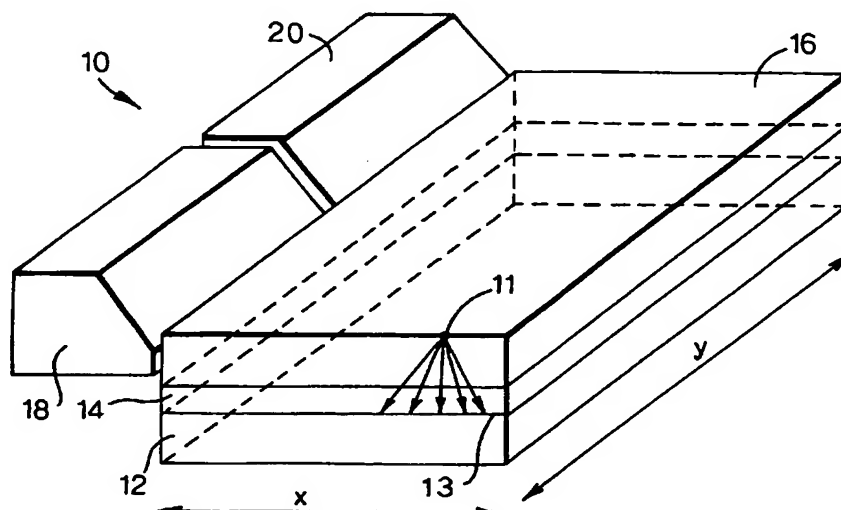
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(54) Title: OPTICAL BIOMETRIC SENSOR WITH PLANAR WAVEGUIDE



(57) Abstract: A biometric sensor (10) comprises a detector array (12) and a planar slab waveguide (16). Diode laser arrays (18, 20) are arranged to couple light into the planar slab waveguide. A ridge of an individual's fingerprint or palmprint, when in contact with the planar slab waveguide at a point of contact therewith, causes a fraction of the light within the waveguide to become unguided at the point of contact, said fraction being detected by the detector array. The sensor has reduced complexity compared to similar sensors employing fibre-optic faceplates and also provides for removal of noise in fingerprint images formed by the sensor, said noise arising from accumulation of dirt or grease on the sensor.